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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,471	03/04/2002	Gerald A. Hutchinson	APTLTD.040CP2D	5405

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EXAMINER

MIGGINS, MICHAEL C

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 10/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/090,471	Applicant(s) HUTCHINSON ET AL.	
	Examiner Michael C. Miggins	Art Unit 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9-16,24-28 and 30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7,9-16,24-28 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>07082004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The IDS filed 7/8/2004 has been considered. However, the JP 11090975A has not been considered because it is a foreign reference in Japanese and applicant has not been provided a statement of relevance. The IDS has been signed and is contained herein. However, a black line has been drawn through the JP 11090975A reference. If applicant wishes for the JP 11090975A reference to be considered, it is respectfully requested that applicant file a separate 1449 with a statement of relevance for the JP 11090975A reference.

WITHDRAWN REJECTION

2. All of the 112, 102 and 103 rejections set forth in the non-final rejection of 2/9/2004, pages 5-28, paragraphs 5-29 have been withdrawn.

REJECTIONS REPEATED

3. There are no rejections repeated.

Response to Arguments

4. Applicant's arguments filed 7/8/2004 have been considered but are moot in view of the new ground(s) of rejection.

NEW REJECTIONS

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-5, 7, 9-10, 12-14, 16, 24-26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirose et al. (U.S. Patent No. 4,844,987) in view of Collette et al. (U.S. Patent No. 5,628,957).

Hirose et al. teach a laminate in the form of a preform or container (column 3, lines 6-43) wherein the laminate consists of first and second layers (column 4, lines 22-40) and wherein the first layer comprising polyethylene terephthalate (column 4, lines 22-40) and said polyethylene terephthalate in the first layer has an isophthalic acid content of at least about 2% by weight (since it is taught that the polyethylene terephthalate comprises at least 80 mole % based on total recurring units and part of the terephthalic acid component may be replaced by at least one member selected from bifunctional carboxylic acids such as isophthalic acid, meaning that the isophthalic acid is present anywhere from 0-20 mole % since terephthalic and isophthalic acid have the same molecular weight, see column 3, lines 44-68), wherein the PET layer (the first layer) forms an interior surface of the pre-form or container (since the PET layer is the inner layer, see column 4, lines 22-40) (applies to instant claims 1, 10, 12 and 24).

With regard to instant claims 2-5, Hirose et al. teach the isophthalic acid content of the polyethylene terephthalate in the first layer is about 2-10, 4-5, 3-8, or 5-10% by weight, since it is taught that the polyethylene terephthalate comprises at least 80 mole % based on total recurring units and part of the terephthalic acid component may be replaced by at least one member selected from bifunctional carboxylic acids such as isophthalic acid, meaning that the isophthalic acid is present anywhere from 0-20 mole% since terephthalic and isophthalic acid have the same molecular weight (column 3, lines 44-68) (applies to instant claims 2-5).

With regard to instant claims 13-14 and 25-26, Hirose et al. teach an isophthalic acid content of about 2-10 and 4-5% by weight in the PET layer (since it is taught that the polyethylene terephthalate comprises at least 80 mole % based on total recurring units and part of the terephthalic acid component may be replaced by at least one member selected from bifunctional carboxylic acids such as isophthalic acid, meaning that the isophthalic acid is present anywhere from 0-20 mole % since terephthalic and isophthalic acid have the same molecular weight, see column 3, lines 44-68) (applies to instant claims 13-14 and 25-26).

Hirose et al. disclose applicant's invention substantially as claimed. However, Hirose et al. fail to teach wherein the second second layer comprising a thermoplastic material selected from the group consisting of copolyester barrier materials, phenoxy-type thermoplastics, polyamides, polyethylene naphthalate, polyethylene naphthalate copolymers, polyethylene naphthalate/polyethylene terephthalate blends, polyethylene terephthalate and combinations thereof,

wherein the second layer of thermoplastic material is a copolyester barrier material and wherein the second layer of thermoplastic material is polyethylene terephthalate comprising recycled or post-consumer polyethylene terephthalate.

Collette et al. teach wherein the second second layer comprising a thermoplastic material selected from the group consisting of copolyester barrier materials, phenoxy-type thermoplastics, polyamides, polyethylene naphthalate, polyethylene naphthalate copolymers, polyethylene naphthalate/polyethylene terephthalate blends, polyethylene terephthalate and combinations thereof (since copolyester barrier material is taught, column 6, line 51 through column 7, line 2), a second layer of thermoplastic material is a copolyester barrier material (column 6, line 51 through column 7, line 2) and wherein the second layer of thermoplastic material is polyethylene terephthalate comprising recycled or post-consumer polyethylene terephthalate (column 10, lines 49-67 and column 5, lines 31-44) (applies to instant claims 1, 7, 9-10, 16, 24 and 28) in a multi-layer laminate for the purpose of providing enhanced thermal and barrier properties and improved adhesiveness (column 1, lines 23-33).

Therefore it would have been obvious at the time applicant's invention was made to have provided wherein the second second layer comprising a thermoplastic material selected from the group consisting of copolyester barrier materials, phenoxy-type thermoplastics, polyamides, polyethylene naphthalate, polyethylene naphthalate copolymers, polyethylene naphthalate/polyethylene terephthalate blends, polyethylene terephthalate and combinations thereof, wherein the second layer of thermoplastic material is a copolyester barrier

material and wherein the second layer of thermoplastic material is polyethylene terephthalate comprising recycled or post-consumer polyethylene terephthalate in the multi-layer laminate of Hirose et al. in order to provide enhanced thermal and barrier properties as taught or suggested by Collette et al..

7. Claims 6, 15, 27 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirose et al. (U.S. Patent No. 4,844,987) in view of Collette et al. (U.S. Patent No. 5,628,957), as applied to claims 1-5, 7, 9-10, 12-14, 16, 24-26 and 28 above, and further in view of either Farha (U.S. Patent No. 5,472,753) or Hutchinson et al. (U.S. Patent No. 6,676,883 B2).

Hirose et al. disclose applicant's invention substantially as claimed. However, Hirose et al. fail to disclose wherein the second layer of thermoplastic material is a poly(hydroxyamino ether).

Farha teaches a second layer of thermoplastic material which is a poly(hydroxyamino ether) (albeit with a certain amount of copolyester in the poly(hydroxyamino ether layer column 35-50 and column 10, lines 15-21) bonded to a PET layer in a two layer laminate (see column 3, lines 35-50) (applies to instant claim 6) for the purpose of providing good oxygen barrier properties combined with excellent mechanical properties (column 2, lines 40-55) (applies to instant claims 6, 15, 27 and 30).

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided a second layer of thermoplastic material which is a poly(hydroxyamino ether) in the multi-layer

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laminate of Hirose et al. in order to provide good oxygen barrier properties combined with excellent mechanical properties as taught or suggested by Farha.

Hutchinson et al. teach a second layer of thermoplastic material which is a poly(hydroxyamino ether) (column 2, line 64 through column 3, line 12) bonded to a PET layer in a two layer laminate (column 2, line 64 through column 3, line 12) (applies to instant claims 6, 15, 27 and 30) for the purpose of providing good barrier properties and physical properties (column 2, lines 58-61) (applies to instant claims 6, 15, 27 and 30).

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided a second layer of thermoplastic material which is a poly(hydroxyamino ether) in the multi-layer laminate of Hirose et al. in order to provide good barrier properties and physical properties as taught or suggested by Hutchinson et al..

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirose et al. (U.S. Patent No. 4,844,987) in view of Collette et al. (U.S. Patent No. 5,628,957), as applied to claims 1-5, 7, 9-10, 12-14, 16, 24-26 and 28 above, and further in view of Schloss et al. (U.S. Patent No. 5,851,471).

Hirose et al. disclose applicant's invention substantially as claimed. However, Hirose et al. fail to disclose a pre-form or container wherein the body portion of the pre-form or container comprises a wall portion and an end cap and the first layer is thinner in the end cap than in the wall portion and the second layer is thicker in the end cap than in the wall portion.

Schloss et al. teach a pre-form or container wherein the body portion of the pre-form or container comprises a wall portion and an end cap and the first layer is thinner in the end cap than in the wall portion (30 from Fig. 4 and column 4, lines 25-65) and the second layer is thicker in the end cap than in the wall portion (20 from Fig. 4 and column 4, lines 25-65) (applies to instant claim 11) for the purpose of providing improved structural strength and durability (column 4, lines 41-52).

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided a body portion of the pre-form or container comprising a wall portion and an end cap wherein a first layer is thinner in the end cap than in the wall portion and wherein a second layer is thicker in the end cap than in the wall portion in the container of Hirose et al. in order to provide improved structural strength and durability as taught or suggested by Schloss et al..

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Miggins whose telephone number is (571) 272-1494. The examiner can normally be reached on Monday-Friday; 1:30-10:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pyon Harold can be reached on (571) 272-1498. The fax

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phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MCM
September 29, 2004

Michael C. Miggins
Examiner
Art Unit 1772

